

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

**In the Matter of:**

<b>Amendment of Part 97 of the Commission's Rules</b>	)	
<b>Governing the Amateur Radio Services</b>	)	<b>WT Docket No. 04-140</b>
	)	

**To: The Commission**

**REPLY COMMENTS OF WILLIAM A. TYNAN, W3XO**

I hereby respectfully submit these reply to certain comments filed in response to the *Notice of Proposed Rule Making and Order*, FCC 04-79, 69 Fed. Reg. 24996, released April 15, 2004 (the Notice).

1. I filed comments in response to the Notice on June 15, 2004.
2. Though I will confine these comments to three matters specifically relating to the VHF and UHF amateur bands, I do wish to voice my support for the positions expressed by AMSAT and Ray Soifer with regard to amateur-satellite service matters.
3. In my comments on this Docket, I addressed my opposition to changing the Rules to permit auxiliary station operation in portions of the 2 meter band. I continue to hold the view that the Commission should NOT rectify, by Rule change, a deficiency created in its equipment by a single amateur products manufacturer. It would have been relatively easy for that manufacturer to have built in capability to operate in the 222 to 225 MHz band, which would have also represented a service to the amateur community. In fact, one wonders if that manufacturer didn't, deliberately, design

their equipment the way they did, with the intention of convincing the Commission to change its Rules simply to accommodate them. Several have commented favorably on this section of the Docket. One is a person well known to the Commission, former staff member, John B. Johnston. I hope that Mr. Johnston's former position will not overly influence the Commission's decision in this matter. Mr. Johnson calls the Commission's proposal, "an excellent start" and goes on to say: "The Commission would go further and remove all frequency restrictions on auxiliary station transmissions." I assume he intended "should" rather than "would" as stated. Mr. Johnston's recommendation with regard to, removing all "frequency restrictions", highlights one major reason for NOT implementing this Rule change. It's human nature that when people get "SOME", they'll want "MORE" and eventually "ALL" of whatever it is that's being offered. Thus, it's predicable that, once authority has been granted for auxiliary station operation in portions of the 2 meter band, the Commission will surely begin receiving petitions for adding more 2 meter frequencies, and perhaps extending such operation to other lower frequency bands. I doubt that the Commission, or those favoring this proposal, have considered its ultimate consequences. With adoption of this portion of the Docket, auxiliary station operation is bound to become widely used, principally by HF DXers and ragchewers able to operate their home stations from up to thirty miles away. Imagine the attraction of being able to drive to and from work while working that elusive country on 20 meters or meeting a favorite 75 or 40 meter round table. It's patently obvious that the 2 meter band will become filled to overflowing with such operation, and the pleas will go to the Commission to include, what the petitioners will term "those little

used frequencies inhabited by so-called weak signal and satellite operators” - just as is already being urged by Mr. Johnston. There will simply won't be enough 2 meter frequencies to go around to support the level of use that will be made of this, easily implemented capability. Make no mistake, this is a Pandora's box of major proportions to the current inhabitants of the 144 to 148 MHz band, both weak signal operators and those who employ FM. In many areas of the Country, principally the larger cities, this band is already heavily used. The Commission will be making a major mistake if it judges the 2 meter band's activity level based on comments from those living in the less populated areas. It is most heavily used the major cities, exactly where the most auxiliary station activity will take place. And, voluntary, self-policing, band plans cannot be counted on to address interference issues between auxiliary station operators and other band occupants. Those individuals most interested in HF operation of one sort or another, will not be concerned with VHF, or its current users. To them, 2 meters will merely be the means by which they run their HF stations remotely. Each will pick THEIR frequency, and from then on, it will be THEIR'S, much the same way certain groups cling to specific frequencies on 40 and 75 meters. These HF operators are large in number compared with VHF operators, so their use of the 2 meter band will eventually dominate it – signaling to end to one of Amateur Radio's most valuable resources for local communication. In his Comments, John McCabe, KD8K expresses his belief that “any interference risk that may be caused by this proposal would be minimal.” I don't understand how he, or anyone else, can make such a rash statement. It is well known that DXing and ragchewing are two of the most popular activities in Amateur Radio. Once the hoards

find that they can participate in these activities from their cars, at their desks at work, or on their patios; there will be no stopping them from doing so without regard to the havoc they might cause to other 2 meter activities. To ascertain what kind of chaos will be present, all the Commission has to do is listen to 20 meters when a rare DX station is active, or to 75 meters during any evening. Mr. McCabe goes on to say, “Auxiliary operation using the 2 meter band would most likely be over very short distances.” I submit that there is NO basis for such a statement. It will occur over whatever distances can be spanned with available equipment. Two meter amplifiers with outputs of 150 Watts are commonly available. Even 450 Watt “afterburners” can be had, although at a quite hefty price. But price does not seem to be much a factor with many HF DXers. There is no reason, lacking interference, why mobile-to-home-station links cannot be regularly established over distances of perhaps 30 miles or more, depending on the height of the home station tower and the terrain of the area. If the Commission is intent on implementing this proposal, perhaps it should consider placing a power and/or distance restriction on such operation. A power of 5 Watts and a distance of 5 miles might be considered. Like me, Robert Rightsell, AE4FA, expresses misgivings on this portion of the Docket. However, he suggests a trial period of two years to determine its impact. He makes the same proposal with respect to spread spectrum which I will address in the next section of these Reply Comments. I submit that such a trial period would represent another example of the “camel’s nose in the tent.” Once a large number have become accustomed to being able to run their HF stations from practically anywhere in their metropolitan area, there will be immense pressure to continue the activity. Indeed, in light of the

financial investment in equipment that would have been made, a valid argument will be present to do so. Ken Rogers, AF4ZR, also favors the Commission proposal for auxiliary station operation on 2 meters, stating: "Auxiliary stations on 2 meters will promote use of VOIP technologies to aid disaster situations." It's difficult to understand how VOIP can be much help in disasters; as one of the first things to go down during disasters, are the phone lines. In addition, many amateurs are already using VOIP technology, specifically EchoLink, with links, which are easily established on the 70 cm band where auxiliary stations are already allowed; and which affords much more space than does 2 meters. William F. Osler, expresses his opinion that "allowing auxiliary stations on the 2 meter band is a good idea." He goes on to say: "There is a slight chance of interference, but in most of the country, large parts of the 2 meter spectrum are under-utilized..." Mr. Osler may be correct with regard to "most of the country"; but, as previously stated, this proposal must not be judged in terms of "most of the country". It must be judged on the basis of the on the basis of where most of the auxiliary station activity will surely take place - the major cities, where the 2 meter band is already heavily occupied. So, auxiliary station operation on 2 meters might work well in Mason City, Iowa or Kerrville, Texas, where I live, but what will the situation be in New York, Boston, Washington, DC, Chicago or Los Angeles? I hope that the Commission will reject this proposal, submitted by one manufacturer, to overcome a deficiency, knowingly built into its equipment. In fact, I would favor, limiting auxiliary station operation to above 902 MHz, with existing coordinated auxiliary links grandfathered, but not ad hoc individual auxiliary operation by individual amateurs. The current Rule concerning

auxiliary station operation was put in place when UHF amateur equipment was far less available than it is today, and activity on bands above 220 MHz was minimal. Neither situation obtains today.

4. Another portion of the Docket proposes to allow spread spectrum operation on the entire 6 meter and 2 meter bands, as well as the 222 MHz band as proposed by ARRL. In my comments, I addressed this proposal saying that there is no demonstrated need for such extension of spread spectrum authorization. I continue to hold this view. There has been almost NO documented use of the spread spectrum authorization which already exists on 420 MHz and above. ARRL, in making its proposal to extend spread spectrum to the 222 to 225 MHz band, says: “The purpose of the ARRL request is to add a VHF allocation to those in which SS emission could be used for experimentation.” ARRL’s proposal is difficult to understand from two standpoints. First, the band to which they propose to add SS operation, is the narrowest band allocated to amateur operation above 29.7 MHz. Spectrum occupied by SS is, by its very nature, wide. It seems inconceivable that the Commission would permit this wide type of emission on the narrowest VHF band, just because it’s a VHF band. Second, equipment for 222 MHz is less available than that for 70 cm. By what logic would the Commission permit SS operation on this narrowest of VHF bands, merely for the sake of allowing it on a VHF band, when equipment for that band is not as readily available as it is for 70 cm where SS is allowed already? John Matz, KB9II, shares my concern regarding the harm that SS operation is capable of producing to existing VHF operation. He postulates widespread interference that might be produced by operation of a net of SS stations running 100 Watts. True, the

Commission's Rules require SS stations, running more than 1 Watt to utilize power control. However, it is difficult to conceive of how power control can work in a net situation, where more than two stations are in contact with each other at the same time. But, even at 1 Watt, a group of SS stations are capable of raising the noise floor significantly enough to disrupt long haul terrestrial or moonbounce activity. Steven R. Sampson, K5OKC, takes Mr. Matz to task, saying: "Mr. Matz uses several examples to show where 1 MHz of spread spectrum would offset these," what Mr. Sampson calls, "homesteaders", his term for those amateurs using existing modes. Mr. Sampson characterizes existing modes as "legacy emission types", and uses descriptions such as "squatter's rights" in referring to amateurs currently using these so-called legacy emission types. He further states: "We've already learned all we can about these legacy emission types and the commission needs to reclaim the spectrum lost to the permanent (no-experimenting) settlers." In my opinion, Mr. Sampson's verbiage displays an attitude, which I fear, is shared by many of those who have promoted SS over the years. According to them, only the mode they espouse, is worthy. All other modes are archaic and their purveyors are "squatters" or "homesteaders" who obviously must be displaced to make way for their vision of progress - spread spectrum. If this attitude is shared by many SS proponents, what chance will cooperation between them and users of other modes, have of succeeding? The Commission's Rules may tell them that SS is secondary to other modes, but they apparently know better. Mr. Sampson goes on to urge the Commission, not merely to open 6 meters, 2 meters and 1-1/4 meters to SS; but to also include the HF and MF bands – ALL amateur bands. This is also indicative of the attitude of many who

espouse SS. “It should take over all of Amateur Radio.” Anything other than SS is outmoded.” Yet, despite all the rhetoric regarding SS, no reports of experimentation have been forthcoming, other than those involving 802.11 technology at 2.4 GHz. As mentioned by Ray Soifer and me in our comments on this Docket, this type of activity appears to offer much greater promise than does shoehorning SS into already heavily used VHF bands. Let’s hear reports of the results of SS experimentation at 70 cm, before considering turning it loose on the rest of the amateur spectrum. If the Commission feels that it must allow SS somewhere else in the amateur spectrum, possibly it should make an HF assignment available, as proposed by several of its proponents, including Mr. Sampson. Though it would not afford the bandwidth desired by some SS backers, the 500 kHz from 28.5 to 29.0 MHz might be a good frequency segment to consider. This portion of the 10 meter band is not heavily used, even during high portions of the solar cycle. Over the next few years, it will surely lie almost completely fallow. George W. Slad, KA9UGM, argues against SS on 6 meters, citing its potential to interfere with model control prevalent on the band. I agree with Mr. Slad’s comment. As both Ray Soifer and I said in our comments, there is absolutely NO reason to open 6 meters, 2 meters or 1-1/4 meters to SS unless and until it can be shown, on the bands on which it is already permitted, that it is viable, and does not inhibit existing activity. No such showing has been forthcoming.

5. I support the Commission’s intention to allow greater degree of freedom for amateurs to operate in the 902 to 928 MHz band in certain areas where they have been



restricted. Such operation should be permitted to the extent that it does not impact vital National defense functions.

RESPECTFULLY SUBMITTED,

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